

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A feeder waveguide that is configured to achieve point-to-multipoint communication, the feeder waveguide comprising:

at least one main feeder line coupled to a feeder port;

that has a plurality of branch feeder lines waveguides branching from a feed side waveguide the at least one main feeder line; and

that is provided with a plurality of selection structures for selectively cutting off each of said branch waveguides, wherein each section structure is configured to selectively cut off one of the plurality of branch feeder lines, independently of the other branch feeder lines,

wherein each of the plurality of selection structures is located at a branch point of the at least one main feeder line and a respective of said branch feeder lines these selection structures being arranged at a starting position of each said branch waveguide at a point of branching from said feed side waveguide to a plurality of said branch waveguides, whereby the main feeder line is selectively enabled or cut off to one or more of the plurality of branch feeder lines.

2. (Currently Amended) A feeder waveguide that is configured to achieve point-to-multipoint communication, the feeder waveguide comprising:

at least one main feeder line coupled to a feeder port;

that has a plurality of branch feeder lines waveguides branching from a feed side waveguide the at least one main feeder line; and

and that is provided with a plurality of selection structures for selectively cutting off each of said branch waveguides,

wherein:

each selection structure is configured to selectively cut off a respective of the plurality of branch feeder line, independently of the other branch feeder lines,

each selection structure is located inside each of the plurality of branch feeder lines and at positions that are $n\lambda/2$ away inside each said branch waveguide from a branch point of said main feeder line and each of the plurality of branch feeder lines, whereby the main feeder line is selectively enabled or cut off to one or more of the plurality of branch feeder lines, a starting position of each said branch waveguide at a point of branching from said feed side waveguide to a plurality of said branch waveguides;

[[where]] λ is a wavelength of a transmission signal in a waveguide the feeder waveguide, and

n is a positive integer.

3. (Currently Amended) The feeder waveguide according to claim 1, wherein said feeder waveguide each of the main feeder line and the branch feeder lines is formed from comprises a waveguide tube.

4. (Currently Amended) The feeder waveguide according to claim 3, wherein said waveguide tubes are formed from a tube comprises at least one metal layer in a dielectric board, and conductive walls that are at least one conductive wall that is effectively formed by conductive vias that are mounted in rows at a prescribed spacing in said provided by at least one conductive via located in the dielectric board.

5. (Currently Amended) The feeder waveguide according to claim 3, wherein each of the plurality of said selection structures is configured to cut off a waveguide that form said branch waveguides one of the plurality of branch feeder lines by effectively forming providing conductive walls that block cross sections of said waveguide tubes a conductive wall that blocks a cross section of the one of the plurality of branch feeder lines, or to enable the one of the plurality of branch feeder line by not forming the conductive wall.

6. (Currently Amended) The feeder waveguide according to claim 5, wherein said selection structures each of the plurality of selection structures are formed from diodes comprises at least one diode that extend between opposing conductive walls that form waveguide tubes of said branch waveguides, and circuits a circuit configured to selectively

apply for selectively applying a reverse bias voltage or a forward bias voltage to said diode
said diodes.

7. (Currently Amended) The feeder waveguide according to claim 5, wherein
said each of the plurality of selection structures are formed from comprises conductive plates
a conductive plate, and structures an apparatus that selectively cause said conductive plates to
move to positions moves said conductive plate between a first position of blocking the cross
section and a second position of not blocking the cross section that block cross sections of
waveguide tubes that form said branch waveguides and to positions that open said waveguide
tubes.

8. (Currently Amended) A sector antenna, comprising:
[[having]] a plurality of antennas, each antenna having a directivity in a
different direction [[and]],
a feeder waveguide that branches midway from a feeder port and leads to each
of said antennas, said sector antenna being provided with:
at least one main feeder line coupled to a feeder port;
a plurality of branch feeder lines branching from the main feeder line, wherein
each feeder line leads to one of said antennas; and
a plurality of selection structures at a location of branching from a feed side
waveguide to a plurality of branch waveguides of said feeder waveguide, each section
structure being configured to selectively cut off for selectively cutting off each of said branch
waveguides at a starting point of each of said branch waveguides one of the plurality of
branch feeder lines, independently of the other branch feeder lines,
wherein each of the plurality of selection structures is located at a branch point
of said main feeder line and each of the plurality of branch feeder lines, whereby the main
feeder line is selectively enabled or cut off to one or more of the plurality of branch feeder
lines.

9. (Currently Amended) A sector antenna, comprising:
[[having]] a plurality of antennas, each antenna having a directivity in a
different direction [[and]],

~~a feeder waveguide that branches midway from a feeder port and leads to each of said antennas, said sector antenna being provided with:~~

at least one main feeder line coupled to a feeder port;

a plurality of branch feeder lines branching from the main feeder line, each feeder line leads to one of said antennas; and

~~a plurality of selection structures, at a location of branching from a feed side waveguide to a plurality of branch waveguides of said feeder waveguide for selectively cutting off each of said branch waveguides~~

wherein:

each selection structure is configured to selectively cut off a respective of the plurality of branch feeder line, independently of the other branch feeder lines,

~~at positions located $n\lambda/2$ inside each of said branch waveguides from a starting point of each of said branch waveguides each of the plurality of selection structures is located inside a respective of the plurality of branch feeder lines, and is located $n\lambda/2$ away from a branch point of said main feeder line and a respective of the plurality of branch feeder lines, whereby the main feeder line is selectively enabled or cut off to one or more of said branch feeder line,~~

[[where]] λ is a wavelength of a transmission signal within said feeder waveguide, and

n is a positive integer.

10. (Currently Amended) The sector antenna according to claim 8, wherein ~~said feeder waveguide each of the main feeder line and the branch feeder lines is formed from comprises a waveguide tube.~~

11. (Currently Amended) The sector antenna according to claim 10, wherein ~~said waveguide tubes are formed from tube comprises a metal layer in a dielectric board, and conductive walls that are at least one conductive wall that is effectively formed by conductive vias that are mounted in rows at a prescribed spacing in said provided by a conductive via located in a dielectric board.~~

12. (Currently Amended) The sector antenna according to claim 10, wherein each of the plurality of said selection structures is configured to cut off a waveguide that form said branch waveguides one of the plurality of branch feeder lines by effectively forming providing conductive walls that block cross sections of said waveguide tubes a conductive wall that blocks a cross section of the one of the plurality of branch feeder lines, or to enable the one of the plurality of branch feeder line by not forming the conductive wall.

13. (Currently Amended) The sector antenna according to claim 12, wherein said selection structures each of the plurality of selection structures are formed from diodes comprises at least one diode that extend between opposing conductive walls that form waveguide tubes of said branch waveguides, and circuits a circuit configured to selectively apply for selectively applying a reverse bias voltage or a forward bias voltage to said diode said diodes.

14. (Currently Amended) The sector antenna according to claim 12, wherein said each of the plurality of selection structures are formed from comprises conductive plates a conductive plate, and structures-an apparatus that selectively cause said conductive plates to move to positions moves said conductive plate between a first position of blocking the cross section and a second position of not blocking the cross section that block cross sections of waveguide tubes that form said branch waveguides and to positions that open said waveguide tubes.